NUCOR STEEL
A DIVISION OF NUCOR CORPORATION
PLYMOUTH, UTAH

CLASS IIIb LANDFILL PERMIT APPLICATION
(Permit Renewal)

March 2010 Revision
Amended July 2011

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UTAH DIVISION OF
SOLID & HAZARDOUS WASTE
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NUCOR
BAR MILL GROUP
PLYMOUTH DIVISION

July 22, 2011

Scott Anderson – Director
Utah Division of Solid and Hazardous Waste
PO Box 144880
Salt Lake City, Utah 84114-4880

Attn: Phil Burns

Re: Revised Class IIIB Landfill Permit Application

Dear Mr. Burns:

We received your letter dated June 15, 2011 which requested corrections and clarifications contained in our Class IIIB landfill Permit Renewal Application submitted by us in 2010. Attached is a revised copy of the application to address your questions and comments.

In summary, the revised application is modified to: describe that the landfill is not a commercial landfill operating for profit; change the maximum slope of final cover from 2.5:1 to 3:1; clarify that post closure erosion repair will occur any time it is discovered during the entire 30 year post closure care period, and; correct the rule reference for electric arc furnace slag.

If you have any questions please do not hesitate to contact me at 435-458-2415 or doug.jones@nucor.com.

Sincerely,

Douglas Jones
Environmental Department Manager
Nucor Bar Mill Group – Plymouth, Utah Division

Attachment

Utah Class III Landfill Permit Application Form

Part I General Information APPLICANT: PLEASE COMPLETE ALL SECTIONS.

Landfill Type	☐ Class IIIa ☒ Class IIIb	**II. Application Type**	☐ New Application ☒ Renewal Application	☐ Facility Expansion ☐ Modification

For Renewal Applications, Facility Expansion Applications and Modifications Enter Current Permit Number 0001R1

III. Facility Name and Location

Legal Name of Facility
Nucor Steel

Site Address (street or directions to site)	County
West Cemetery Road	Box Elder

City	State	Zip Code	Telephone
Plymouth	UT	84330	435-458-2300

Township	Range	Section(s)	Quarter/Quarter Section	Quarter Section
13 N	3 W	9		

Main Gate Latitude	degrees	minutes	seconds	Longitude	degrees	minutes	seconds
	41	52	35		112	11	46

IV. Facility Owner(s) Information

Legal Name of Facility Owner
Nucor Steel

Address (mailing)
PO Box 100

City	State	Zip Code	Telephone
Plymouth	UT	84330	435-458-2300

V. Facility Operator(s) Information

Legal Name of Facility Operator
Nucor Steel

Address (mailing)
PO Box 100

City	State	Zip Code	Telephone
Plymouth	UT	84330	435-458-2300

Property Owner(s) information

Legal Name of Property Owner
Nucor Steel

Address (mailing)
PO Box 100

City	State	Zip Code	Telephone
Plymouth	UT	84330	435-458-2300

VII. Contact information

Owner Contact	Title
Doug Jones	Environmental Department Manager

Address (mailing)
PO Box 100

City	State	Zip Code	Telephone
Plymouth	UT	84330	435-458-2300

Email Address	Alternative Telephone (cell or other)
doug.jones@nucor.com	435-279-0539

Operator Contact	Title
Same as above	

Address (mailing)

City	State	Zip Code	Telephone

Email Address	Alternative Telephone (cell or other)

Property Owner Contact	Title
Same	

Address (mailing)

	State	Zip Code	Telephone

Email Address	Alternative Telephone (cell or other)

Utah Class III Landfill Permit Application Form

Part I. General Information (Continued)

VIII. Waste Types (check all that apply)

● All types of non-hazardous industrial waste generated by the facility OR the following specific waste types

Waste Type	Combined Disposal Unit	Monofill Unit
☐ Construction & Demolition	☐	☐
☐ Industrial	☐	☐
☐ Incinerator Ash	☐	☐
☐ Animals	☐	☐
☐ Asbestos	☐	☐
☐ Other _____	☐	☐

Note: All waste types must be generated by the industry which owns the facility

IX. Facility Area

Facility Area	35	acres
Disposal Area	35	acres
Design Capacity		
Years	15	
Cubic Yards	0	
Tons	0	

X. Fee and Application Documents

Indicate Documents Attached To This Application ☒ Application Fee: Amount $100.00

☒ Facility Map or Maps	☒ Facility Legal Description	☒ Plan of Operation	☒ Waste Description
☐ Ground Water Report	☒ Closure Design	☒ Cost Estimates	☒ Financial Assurance

I HEREBY CERTIFY THAT THIS INFORMATION AND ALL ATTACHED PAGES ARE CORRECT AND COMPLETE.

Signature of Authorized Owner Representative Douglas Jones Name typed or printed	Title Envi. Dept. Manager Address PO Box 100, Plymouth, UT 84330	Date 7/22/11
Signature of Authorized Land Owner Representative (if applicable) Name typed or printed	Title Address	Date
Signature of Authorized Operator Representative (if applicable) Name typed or printed	Title Address	Date

NUCOR STEEL
A DIVISION OF NUCOR CORPORATION
PLYMOUTH, UTAH

CLASS IIIb LANDFILL PERMIT APPLICATION
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Amended August 2011

Table of Contents

List of Attachments

1.0 Introduction

Nucor Steel owns and operates a steel recycling facility in northern Utah near the town of Plymouth in Box Elder County. A location map is included in Attachment 1.

Construction of the facility began in the late 1970's, with operation beginning in 1980. A permit to operate a landfill was issued by the State of Utah Department of Health, Division of Environmental Health, dated April 15, 1980. Some permit changes have occurred over time since the issuance of the original permit. The most recent permit change was a renewed permit with an effective date of November 1, 2005. The permit expires October 31, 2010. A renewal application is required at least 180 days prior to permit expiration. This document is being submitted to meet that requirement.

In addition to operation of the landfill for nonhazardous waste disposal, Nucor retains a vendor to provide dumpsters located around the plant. The vendor periodically empties the dumpsters and hauls the waste to a municipal landfill. Nucor intends to continue to utilize this service, which provides Nucor dual capabilities for waste disposal.

The landfill operated at the Nucor facility meets the definition of a Class IIIb landfill as described in the regulations. The landfill is a noncommercial landfill that receives only industrial nonhazardous solid waste generated at Nucor's facility.

This renewal application does not propose any changes from that already permitted.

1.1 Generai Informatlon

The landfill will be operated by the following:

Nucor Steel
PO Box 100
West Cemetery Road
Plymouth, Utah 84330

The landfill is located on property owned by Nucor, the landfill applicant, within approximately 700 acres of scrap steel recycling operations. Nucor is the responsible party for landfill operations and future closure.

1.2 General Description

Landfill operations have historically been conducted in the southwestern corner of the property owned by Nucor. Nucor intends to continue operations in this area of the property for the duration of operations. A site plan of the portion of Nucor property where the landfill is located is included as Attachment 3.

The landfill over the life of operation will encompass as much as 35 acres. The landfill area to be used from this date forward is generally the same area as used in historical landfill operations. Nucor believes that the historical landfill area can be better utilized for space reduction and that there are areas that can be again used for landfill material. The particular areas to be reused are areas in which large demolition materials, primarily large chunks of concrete, were deposited. The reuse of this space will minimize the area impacted by landfill operations.

1.3 Legal Description

The landfill is to be operated on property owned by Nucor Steel. Proof of ownership of the property is included as Attachment 4. Nucor will continue to operate the landfill in a portion of this property as shown in Attachment 3.

The property owned by Nucor is unzoned. Property surrounding the Nucor operations in all directions is also not zoned.

There is a deed restriction for the landfill area that limits future use of the property to non-residential.

1.4 Types of Waste

The waste to be deposited in the landfill is waste generated exclusively on-site associated with steel making and auxiliary operations. This waste has historically been deposited in the landfill since the beginning of operations. The types of waste to be deposited on a regular and continual basis are as follows:

a) personal use items, such as carry-out containers from the on-site cafeteria
b) packaging materials for parts and supplies associated with operation of the plant
c) building components
d) refractory brick determined to be nonhazardous
e) waste material from rail car cleaning
f) scrap wood, i.e. dunnage, crates, pallets
g) dirty rags, used gloves, worn or scraped non-steel or non-recyclable steel equipment/parts, filter media, etc.

Other waste that may periodically be placed in the landfill includes the following:

a) mill scale if containing debris making it nonmarketable
b) electric arc furnace slag in a form that is nonmarketable[1]
c) other nonhazardous and/or nonregulated waste
d) remediated contaminated soil.

The landfill design includes two types of cells that may be used for any of the above materials.

The types of waste that **will not** be deposited in the landfill are as follows:

a) containers containing free liquids, except non-regulated such as partially empty pop bottles, etc.,
b) media containing free liquids,
c) regulated hazardous waste, and other prohibited regulated waste.

The determination of whether a material is defined as hazardous or non-hazardous is determined by sampling, MSDS of the product, or by generator knowledge.

[1]Electric Arc Furnace Slag is specifically exempt from regulation by R315-304-1(2)(c) UAC. This slag is present on-site in stockpiles, sold as outside sales by a contractor as a product, and used around the Nucor facility for road base and other purposes. Some slag that cannot be marketed may be placed in the landfill. Also, slag will continue to be used at the landfill to construct roadways and to aid in erosion control.

1.5 Noncommercial Landfill Demonstration

Commercial solid waste is defined in the regulations as " *all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding household waste and industrial waste.*"

Industrial solid waste is defined as "*any solid waste generated at a manufacturing or other industrial facility that is not a hazardous waste. Industrial solid waste includes waste from the following manufacturing processes and associated activities: electric power generation, fertilizer or agricultural chemicals, food and related products and by-products, inorganic chemicals, iron and steel manufacturing, leather and leather products, nonferrous metals manufacturing or foundries,.....*"

Nucor does not accept waste from any outside entities of any type including household garbage that could be brought in by employees. All wastes directed to the landfill are generated on site as part of the manufacturing process and associated operations related to the manufacture of steel products. There are no fees associated with disposal of materials. There is no revenue generated by operation of the landfill and the cost for operating the landfill is borne by Nucor as an operating cost related to the manufacture of steel products. The landfill is not a type of LLC or other independent operating unit. The landfill, in itself, is not operated for profit.

2.0 Plan of Operation

2.1 Intended Schedule of Construction

The landfill is currently constructed and operating as allowed under the current Landfill Permit (Attachment 2). Nucor will continue to operate this landfill in the same general area. A new landfill will not be constructed. However, continual construction of active landfill pits or cells within the overall area will be part of routine operation. Small landfill pits will be constructed in the area for depositing waste. Alternatively, the large cell may be used instead of a series of small cells.

2.2 Waste Handling Procedures

As part of the initial orientation of new employees, and the periodic refresher training for existing employees, Nucor conducts training on the types of waste at its facility and the proper disposal methods for the waste. Proper use of the landfill is included in this training. In addition, discussions with supervisors of various departments within this facility are periodically conducted to maintain continual control of the waste being directed toward the landfill.

Nucor assigns overall responsibility of the landfill to one person. Currently, this person is an independent contractor who has the authority to inspect and reject any load that is intended to be deposited in the landfill. This pre-deposit procedure may be used during periods when the landfill has abnormally high use, such as when special demolition projects occur, or during semi-annual shutdowns. In these cases the contractor may assign a person to be at the landfill full time for the purposes of waste inspections. During normal day to day operations, however, the landfill use is limited with very little, or perhaps no waste, is deposited in the landfill. For this normal circumstance, it is not practical to have an inspector assigned to the landfill full time. Instead, an inspection by the contractor is conducted of any waste deposited in the landfill at the end of the day. If any material is discovered that should not have been disposed in the landfill, it is removed and transferred to a proper disposal location.

The independent contractor also maintains daily site records. An example site record is contained in Attachment 5.

Waste will be received at the landfill in a variety of containers and load sizes. Typical containers carrying waste to the landfill include small barrels carried in pickup trucks, buckets of front end loaders, 10-wheeled dump trucks, and other receptacles carried by fork lifts.

At the landfill, the vehicle carrying the load backs down a ramp and places the waste in the bottom of the pit. Placing the waste in the bottom of the pit limits windblown litter and fugitive emissions.

The material deposited in the landfill will be inspected daily by the landfill operator. Any material that should not have been deposited in the landfill will be removed, and appropriate Nucor personnel will be notified.

The landfill operator will determine if cover should be applied at the end of the day under the following conditions:

1) Is garbage[2] present?
2) Is litter present that may become windblown?
3) Is fine material present that may become fugitive dust?

If any of the above conditions exist, daily cover of approximately 6 inches of earth will be applied.

Some steel or non-ferrous metals may be removed from the landfill and placed in stockpiles for future recycling.

The amount and type of material placed in the landfill are recorded on forms daily, and a minimum of one daily inspection of the landfill is and will be completed. An example of a daily landfill tracking form is included in Attachment 5.

2.3 Contingency Plan for Fire or Explosion

No purposeful burning will occur at the landfill. In the event that an accidental fire occurs at the landfill, the fire will be extinguished through the use of a water truck, or by applying earthen cover. Several water trucks are operated at the facility and are readily available for firefighting purposes. Depending on the type of fire, covering the fire through the use of available on-site front-end loaders or dozers may also be done. These fires would be extinguished as they are discovered.

It is highly unlikely that an explosion would occur at the Nucor landfill, since very little methane-producing waste is landfilled. The endangerment to the public and Nucor personnel and contractors from an explosion is minimal due to the remoteness of the site from the public and Nucor's operations.

2.4 Groundwater Contamination Corrective Action Program

No groundwater contamination could reasonably be expected from operation of the landfill at Nucor. The waste entering the landfill is managed to control materials that enter the site as described in previous sections.

In addition, groundwater is not near the surface at the Nucor property. Four wells are located on property owned by Nucor. As part of the initial construction of this plant, Nucor drilled three of these wells. Through review of the Well Drillers Log for the wells, it is found that initial encounters with groundwater

[2] Garbage is defined as "discarded animal and vegetable wastes and animal and vegetable wastes resulting from the handling, preparation, cooking and consumption of food, and of such character and proportion as to be capable of attracting or providing food for vectors...."

were found at depths ranging from 43 feet to 117 feet. A spring is also located on Nucor property at an elevation of approximately 150 feet below the elevation of the landfill.

As a Class IIIb landfill, no groundwater monitoring program is required. Given the types of material placed in the landfill and the landfill management program used, a groundwater contamination corrective action program will not be necessary.

2.5 Other Releases

No other releases from the Nucor landfill are expected. As discussed in previous sections, gases are not of concern because of the limited amount of organic material that would be placed in the landfill.

The monofill area has been designed to include runon/runoff controls and a final cover system for final closure. Details of these systems are shown on Figure 1 in Attachment 6.

The active landfill area is a limited number of pits at any one time Once a pit has been filled to design capacity, a new pit is excavated and the prior pit is recovered and reclaimed. Surface water cannot leave the pits, and the amount of surface water entering the existing and newly constructed pits is and will be limited by constructing water control/diversion structures. A runoff collection system is not needed.

2.6 Fugitive Dust Control

The landfill at Nucor is a small component of activities at the Nucor site. Fugitive dust control is an ongoing activity at the site, and the practices are applied at the Nucor landfill. Nucor operates under conditions specified in an air quality permit issued by the Utah Division of Air Quality. This permit requires fugitive emission controls plant wide, and limits fugitive dust from the landfill to 20 percent opacity as determined by EPA Method 9. Daily cover will also be used as needed to control dust.

2.6.1 Fugitive Roadway Emissions

The primary method of controlling fugitive dust from roadways leading to the landfill is to cover the roads with road base made from electric arc furnace slag. Slag is superior to other unpaved surfaces for dust control because the material does not readily grind into smaller particles that become airborne.

There is limited vehicle traffic to the landfill. This, alone, limits the amount of fugitive roadway emissions, and provides a long life for the slag used as a surfacing material. Nucor imposes plant-wide speed limits for all vehicles, which further controls fugitive roadway emissions.

In addition, Nucor provides plant-wide continuous dust control through the use of a water truck when weather conditions permit. The water truck operates plant wide, including the landfill, applying water to areas generating the greatest emissions.

2.6.2 Fugitive Emissions from Construction and Operation

Fugitive emissions generated from landfill construction and general operations are limited because these types of operations are infrequent. Construction activities include only the excavation of new pits, and new pit construction will occur only approximately once or twice per year, if the smaller of the two designed pits are used. New pit construction may not occur for many years if the larger pit design is used. Pit construction is generally completed using a single piece of equipment, such as a backhoe or dozer, to excavate the pit. Other construction operations include road construction to new pit areas. Since the terrain

in the area of the landfill is generally flat, road construction is basically limited to the laying of a slag surface described in the previous section. Construction activities are limited and cause very minimal fugitive emissions.

Emissions from operation of the landfill are also minimal. Operations comprise depositing materials in the landfill, which generally is not a fugitive emission source. If daily cover is applied, it involves the application of only a minimal amount of material using a single piece of equipment, typically a dozer. The daily cover is typically applied once per day on days when cover is warranted, and is completed in a relatively short period of time. Final cover of a pit requires additional equipment operating time; however, final cover is completed very infrequently, approximately once or twice per year. Emissions from landfill operations are minimal, and are already regulated by existing environmental quality requirements.

2.7 Hazardous Waste

As described in Section 1.4 of this document, procedures and practices are in place to ensure that hazardous waste does not enter the landfill.

2.8 Disease Vector Control

Disease vectors include animals such as rodents, birds, and insects that may carry disease from a landfill. Disease is primarily a concern when garbage is deposited in a landfill attracting vectors as a food source. Garbage is material derived from animal or vegetable wastes, or from the preparation of food.

The Nucor landfill does contain some garbage, primarily in the form of food waste from an on-site cafeteria carry-out containers. Waste from the cafeteria itself is not deposited in the landfill, but rather placed in dumpsters and hauled off-site to a municipal landfill.

Disease vector control will be accomplished by providing daily cover, on those days when garbage is placed in the landfill.

The EAF monofill will contain no organic material and thus should not present a vector concern.

2.9 Alternative Waste Handling Plan

The Nucor landfill is used as a supplement to waste handling at the Nucor facility. Many types of waste are shipped off-site according to the characterization of the waste. Nucor retains the use of a waste disposal service that provides dumpsters located throughout the facility. The service provider regularly picks up the dumpsters and transports the waste to a municipal landfill. Nucor employees are encouraged to use the dumpsters. Material accepted at the Nucor landfill is the same type of material that can be placed in the dumpsters.

2.10 Training and Safety Plan

The training and safety plan for the Nucor landfill is included as Attachment 7.

2.11 Compliance with Industrial Solid Waste Landfill Requirements

Section R315-304-3(2) and R315-304-3(3)(b) and the current operating permit define the Nucor landfill as a Class IIIb landfill. The Nucor landfill is not open to the general public, and it receives only nonhazardous industrial waste.

2.11.1 Location Standards

The existing Nucor landfill meets the location standards required for a Class IIIb landfill. A brief summary of the location requirements is in the following subsections.

- Class IIIb landfills are restricted from being located in a flood plain. The Nucor landfill is located on elevated terrain. See the location map in Attachment 1 for location and elevation details.
- Class IIIb landfills are restricted from being located in wetland areas. The Nucor landfill is not located in a wetland area.
- Class IIIb landfills are required to be located at least 5 feet above the historical high ground water elevation. Nucor has drilled three wells on the site property. The shallowest groundwater encountered in these wells was at greater than 40 feet from the surface. The maximum excavation depth for the new monofill and existing waste cells is 20 feet below existing grade. Previous excavations in and around the existing landfill have provided no evidence of groundwater. Based on this information, the landfill is located more than 5 feet above groundwater.

2.11.2 General Requirements (R315-304)

Applicable requirements contained in R315-302-2(2)(a) through (k), as described in R314-304, are addressed in various subsections of Section 2 of this document.

2.11.2.1 Closure and Post-Closure Care Plans

2.11.2.1.1 Closure Plan

All waste material placed in the landfill will be covered with a minimum of 2 feet of final earthen cover once the cell has reached capacity. The earthen cover will blend with the surrounding terrain and will be sloped so that water does not pond on top of the area.

Any remaining sloped areas that may be found on the outskirts of the landfill area will be regarded to a 3:1 slope, or flatter, to minimize erosion and to assist in the success of revegetation.

The landfill cover and regraded slopes will be seeded with a seed mix of vegetation native to the area. Prior to applying the seed on roadways to be reclaimed, the surface will be scarified with rippers mounted on heavy equipment, or similar method. Once the seed is spread by hand sewing, a dozer or other track-mounted piece of equipment will travel on the seeded area to cover the seeds and to create tracks to help hold atmospheric water. This tracking will also aid in the prevention of erosion. Seeding will only be completed in the spring or fall.

Reclaimed areas will be closed to future landfill use.

2.11.2.1.2 Post-Closure Care

Post closure care will include inspections for runon/runoff control, vegetation success, final cover erosion damage, and settlement. Any deficiencies found would be repaired. The inspection would include all areas in which individual cells had been closed. This permit renewal application includes a total of 60 post closure inspections, 2 each per year for 30 years.

The post closure inspection schedule applies in the event that the entire landfill is no longer used and has been closed. The schedule above would be implemented based on the final closure date.

During periods in which the landfill is operating, inspections of closed and reclaimed individual cells within the landfill area would occur as part of routine operation and maintenance of the landfill. Repairs of closed cells, if needed, would be completed as part of routine operation of the landfill.

2.11.2.1.3 Cost Estimates and Financial Assurance

The cost for closure is based on the following activities being accomplished.

- Regrading. The amount of material to be regraded is equal to the amount of material excavated for the pit construction. This previously excavated material will be needed to fill the excavation back in and/or to recontour the area surrounding a reclaimed pit to a maximum no steeper than a slope of 3:1. The amount of material removed in new pit construction is approximately 1,875 cubic yards for each individual small cell. For purposes of financial assurance, no more than 10 pits would be unreclaimed at any one time plus the large cell area (approximately 6.9 acres). Because the single large cell will be larger than the average cell used for general waste disposal, soil excavated from the monofill will be staged around the perimeter to prevent surface water runon.

- Revegetation. The area requiring revegetation is equal to the sum of the footprints of the cells to be reclaimed (10 or less). The initial permit issued to Nucor for landfill operation did not contain any reclamation or post closure care requirements. The existing landfill is in an area that has been used for landfill purposes by Nucor during historical operations operated under the initial permit and that has not previously been totally reclaimed. Areas subject to closure requirements by current regulations are pits that were active on July 15, 1999, or new pits constructed after this date.

  To be conservative, Nucor is proposing to include the cost of revegetating the entire 35-acre landfill area in calculations for financial assurance. Revegetation will consist of hand sewing seeds, and tracking the seeded area by operating tracked equipment to assist in water retention and seed coverup. The seed mix to be used is a mix of seeds that are native to the area surrounding Nucor (Attachment 8). Once revegetated, the area will no longer be used for landfill purposes, or revegetation upon completion of a new disturbance.

  The landfill access road will require ripping prior to seeding. The cost for ripping is included in the cost calculations.

  Other. No equipment or structures will be dedicated to landfill operations. Class IIIb landfills are exempt from groundwater monitoring during operations and following closure. No additional cost is associated with closure.

Cost estimates for final closure are included as Attachment 9.

Post-closure care will also require financial assurance. Financial assurance will include costs associated with the following activities:

- As outlined in the previous section, a total of 60 inspections of the closed landfill would occur during a 30-year period following closure. No inspections beyond that time are necessary. For purposes of estimating the cost for the inspections to apply toward financial assurance it is assumed that a third-party contractor would perform the inspections. The inspector would be competent in discerning vegetation success, erosion problems, and settlement by completing a

walk and a visual survey of the area and would generate a simple report that describes areas that require site work. For purposes of estimating costs, the amount of the inspection is escalated 2.5% per year to allow for inflation.

- The area immediately surrounding the landfill is gently sloping. As part of the initial Nucor facility construction, drainage around the landfill area was redirected to direct runoff from surrounding areas from entering the landfill area. The final covers for the individual cells to be used in the landfill are to have a 3:1 or flatter slope. The potential for damage owing to erosion is minimal. For financial assurance cost-estimating purposes, it is assumed that no more than 3000 yards of site grading using a dozer would be required to repair erosion damage. All erosion repair would occur at the time it was discovered during any inspection period during the entire 30 year period. Therefore, the financial assurance calculations include an escalating time period of 30 years.

- Settlement would be of concern if it caused runon water to accumulate in a low spot allowing it to infiltrate into the closed cell. Settlement of the material and final cover of any cell is very unlikely to occur, given the type of material typically placed in the landfill and the type of soil at the site, as well as the relatively small size of the cells. For financial assurance purposes, it is assumed that the cost of repairing any settlement is included in the cost for repairing erosion described above.

- Revegetation would be required in any area in which repair was required, as described above, or in the event that the initial seeding was not successful. For estimating the costs to be included in financial assurance, it is assumed that no more than 1 acre would require re-vegetation. Re-vegetation would occur following any inspection where it was discovered it was needed. An escalation factor of 2.5% annually is applied to the cost.

Documentation of the method of financial assurance is included in Attachment 10.

3.0 Technical Report

3.1 Maps

3.1.1 Topographic Map of Landfill Area

A topographic map of the landfill area with landfill boundaries is included in Attachment 3. Runoff control structures are not included for the general waste cells because the individual landfill pits will not have runoff. Runon control will consist of earthen barriers constructed of the pit excavation material around three sides of the pits, and each pit will be oriented so that surface water does not run into the pit on the one open (ramp) side. The borrow and fill areas are the excavation material from each individual pit.

Additional details for runon/runoff controls for the large cell design are shown on Figure 1 in Attachment 6. Runon will be controlled with perimeter stockpiles constructed of soil from the cell excavation and shallow drainage ditches. Runoff will not be an issue until the waste is filled to existing grade (i.e., the waste elevation will be below the elevation of the surrounding terrain preventing runoff). As the waste elevation increases, runoff will be controlled. Waste placement will be staged to allow a natural ditch configuration to form around the perimeter of the cell. By leaving the perimeter of the cell exposed for final cover tie-in, a natural ditch will form that will collect runoff from the fill area and allow it to percolate back into the cell. As waste is brought up to grade around the perimeter, daily cover will be applied more frequently to prevent waste erosion and runoff.

to percolate back into the cell. As waste is brought up to grade around the perimeter, daily cover will be applied more frequently to prevent waste erosion and runoff.

3.1.2 USGS Topographic Map

A portion of a 7-1/2 minute series USGS map that includes Nucor operations is included as Attachment 1. This map includes significant detail to identify structures within 1/4 mile of the proposed landfill. A map with greater detail showing the property boundaries of the landfill within the Nucor property is included in Attachment 3.

3.2 Engineering Report – Plans, Specifications, and Calculations

A drawing that details cell design, cover design, design fill, and cover methods for the existing landfill permit is included as Attachment 6. This drawing also details runon and runoff control designs.

3.3 Closure Plan

3.3.1 Closure Schedule

There is no long-term closure schedule for the landfill in the area set aside for landfill operations. The landfill will be operating indefinitely during all times that the Nucor plant is in operation.

Individual pits, however, will be closed once they reach capacity and a new pit is excavated. Each pit will receive final cover as a new cell becomes available for use.

3.3.2 Design of Final Cover

Final cover of landfilled material will be a minimum of 2 feet thick. The construction material for the cover will be primarily a silty material that was excavated from the pits during the initial excavation of the individual cells. This material also serves as topsoil. Design of the final cover is detailed in the drawings included as Attachment 6.

3.3.3 Capacity of the Site

Each of the individual small cells for general waste will have a capacity of approximately 2,200 cubic yards of land-filled material before final cover is placed over the area. The landfilled material will consist of a combination of waste and daily cover material (earth) that has been placed as needed during the life of the pit. Because of the uncertainty of the type of material that will be placed in the landfill, and the uncertainty of the proportion of daily cover material contained in the landfill, the weight of landfilled material cannot be accurately projected.

The large cell will be constructed over 6.9 acres to provide a disposal volume of approximately 226,00 cubic yards (CY). This volume is designed to handle 15 years of EAF dust generation based on average generation rate of 15,000 CY per year. If EAF dust is not deposited in the landfill, the large cell may be used for wastes described earlier in this application. Note that the waste will consolidate in the monofill to allow space for daily cover.

3.3.4 Final Inspection by Regulatory Agencies

The landfill at the Nucor site will operate indefinitely in an area used historically as a landfill site. Future landfill operations will consist of the construction of individual cells, as described in previous sections, with a defined design. A schedule for final closure of the entire landfill area cannot be defined.

4.0 Post-Closure Care Plan

4.1 Site Monitoring

Site monitoring following closure is described in detail in Subsection 2.11.2.1.2, Post-Closure Care.

4.2 Changes to Record of Title, Land Use, and Zoning Restrictions

The Nucor facility is a permanent operation. The landfill is a component of the operations located within Nucor property boundaries. It is not reasonable to expect that there will be a change in title, land use, or zoning restrictions. A deed restriction is in place prohibiting the use of the landfill for residential use.

4.3 Maintenance Activities – Runon/Runoff Control Systems

As each individual pit or cell reaches capacity, steps toward reclamation will be taken by placing a final cover on the landfilled material and regrading to flat slopes. Seeding activities may be conducted in the spring or fall following closure of each individual pit. However, to be conservative in financial assurance calculations, it is assumed that all reclamation activities will be conducted on up to 10 cells at once and the entire 35-acre area will be revegetated. The reclamation procedure is described in detail in previous sections of this document. The final cover will minimize potential surface water runon and runoff contamination, and the flat slopes and established vegetation will minimize erosion potential from both runon and runoff. No ongoing maintenance activities are expected to be necessary; however, if any problems with closed cells are found during periods when the landfill is still operating, repairs will be completed as necessary.

A description of post-closure care in the event that the entire landfill is closed is included in Subsection 2.11.2.1.3, Cost Estimates and Financial Assurance.

4.4 Contacts for Post-Closure Care

The Nucor facility is a permanent operation. The Nucor landfill area does not have a scheduled closure date, and may operate during the life of the facility. The on-site contact for the landfill is:

Doug Jones, Environmental Department Manager
Nucor Steel
PO Box 100
Plymouth, Utah 84330
(435) 458-2415

The corporate contact for Nucor, to be used as an alternate contact to the local contact is:

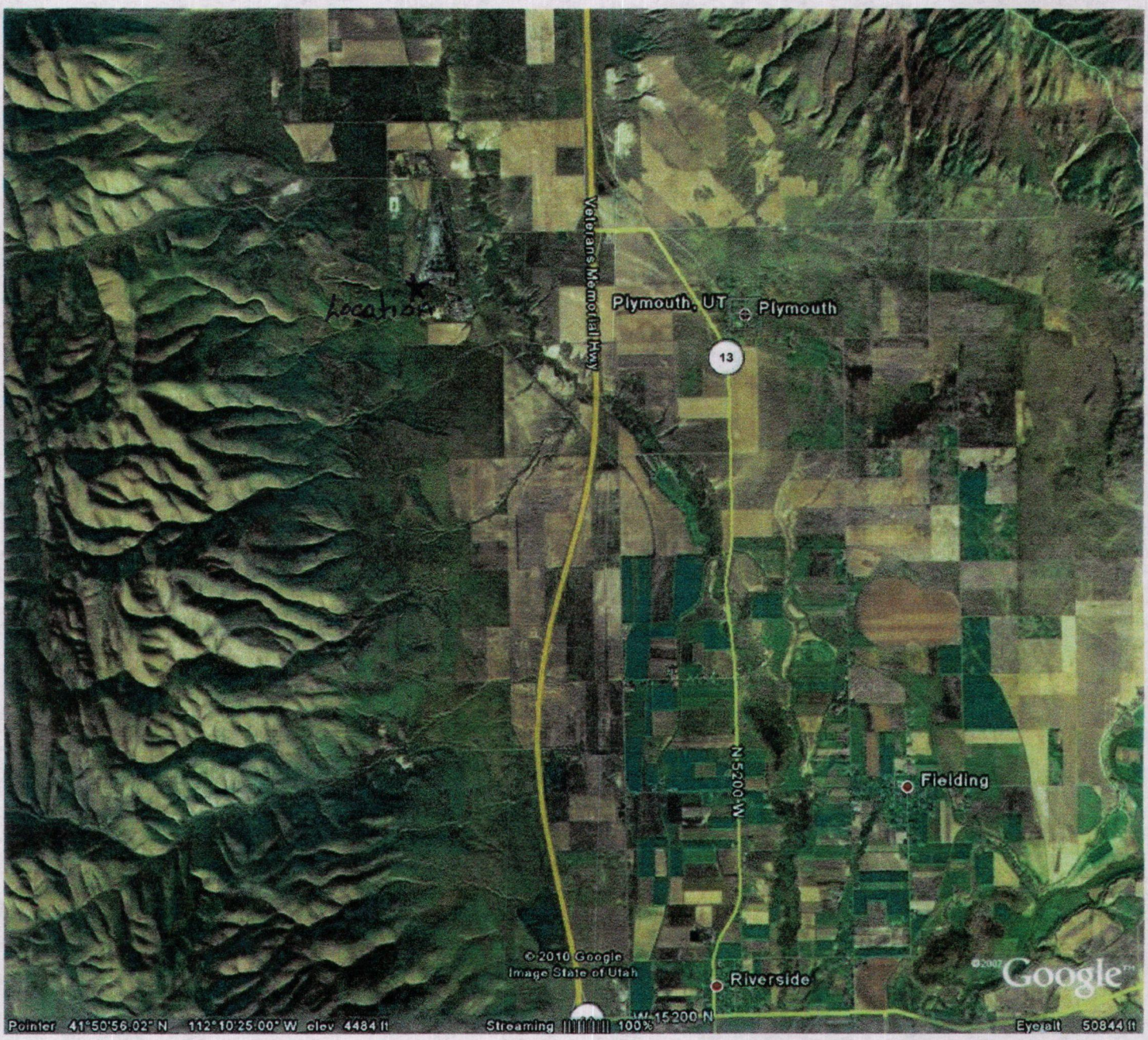
Steve Rowlan, Manager of Environmental Affairs
Nucor Steel Corporation

2100 Rexford Road
Charolotte, NC 28211
(704) 366-7000

5.0 Financial Assurance

Cost calculations for closure, a description of post-closure care, and a description of the financial assurance mechanism are all addressed in previous sections of this document.

Attachment 1
Location Map


Location
Veterans Memorial Hwy
Plymouth, UT
Plymouth
13
N 5200 W
Fielding
Riverside
W 15200 N
© 2010 Google
Image State of Utah
Google
Pointer 41°50'56.02" N 112°10'25.00" W elev 4484 ft
Streaming 100%
Eye alt 50844 ft

Attachment 2
Existing Landfill Permit

State of Utah

Department of
Environmental Quality

Dianne R. Nielson, Ph.D.
Executive Director

DIVISION OF SOLID AND
HAZARDOUS WASTE
Dennis R. Downs
Director

JON M. HUNTSMAN, JR.
Governor

GARY HERBERT
Lieutenant Governor

February 13, 2006

Douglas Jones, Environmental Engineer
Nucor Steel
PO Box 100
Plymouth, Utah 84330

Subject: Nucor Steel Class Landfill Cell Construction Approval

Dear Mr. Jones:

We have reviewed your notice received January 20, 2006 regarding the recent construction of an industrial waste cell and request for approval of this and identically constructed future cells. The recently constructed cell is approved. Construction of future such cells is also approved, provided they are constructed exactly as described in the permit application. Any deviation from the design shown in the permit application will require a separate, cell-specific approval.

We appreciate your efforts at operating the facility in compliance with current regulations. If you have questions regarding this or other solid waste issues, please contact Phil Burns or Ralph Bohn at 538-6170.

Sincerely,

Dennis R. Downs, Executive Secretary
Utah Solid and Hazardous Waste Control Board

DRD/PEB/kk

c: Lloyd C. Berentzen, MBA, Health Officer, Bear River Health Department

288 North 1460 West • PO Box 144880 • Salt Lake City, UT 84114-4880 • phone (801) 538-6170 • fax (801) 538-6715
T.D.D. (801) 536-4414 • www.deq.utah.gov

State of Utah

Department of
Environmental Quality

Dianne R. Nielson, Ph.D.
Executive Director

DIVISION OF SOLID AND
HAZARDOUS WASTE
Dennis R. Downs
Director

JON M. HUNTSMAN, JR.
Governor

GARY HERBERT
Lieutenant Governor

October 28, 2005

Douglas Jones, Environmental Engineer
Nucor Steel
PO Box 100
Plymouth, Utah 84330

Subject: Nucor Steel Class Landfill Permit Renewal

Dear Mr. Jones:

Enclosed is the solid waste permit renewal for the Nucor Steel Class IIIb Landfill. A public comment period was held from September 7 to October 7, 2005. No comments were received. The permit is valid for five years from the effective date. Application for renewal should be made 180 days prior to the expiration date.

We appreciate your efforts at operating the facility in compliance with current regulations. If you have questions regarding the permitting process or other solid waste issues, please contact Phil Burns or Ralph Bohn at 538-6170.

Sincerely,

Dennis R. Downs, Executive Secretary
Utah Solid and Hazardous Waste Control Board

Enclosure: Nucor Steel Landfill Permit Renewal

DRD/PEB/kk

c: Lloyd C. Berentzen, MBA, Health Officer, Bear River Health Department

UTAH SOLID AND HAZARDOUS WASTE CONTROL BOARD
SOLID WASTE PERMIT RENEWAL

CLASS III LANDFILL

Pursuant to the provisions of the *Utah Solid and Hazardous Waste Act*, Title 19, Chapter 6, Utah Code Annotated (UCA) 1953, as amended (the Act) and the *Utah Solid Waste Permitting and Management Rules*, Utah Administrative Code (UAC) R315-301 through 320 adopted thereunder,

Nucor Steel as owner and operator,

is hereby authorized to operate the Class IIIb landfill located in the southwest ¼ of Section 9, Township 13 north, Range 3 west, Salt Lake Base and Meridian, Box Elder County, Utah as shown in the permit renewal application that was determined complete on August 10, 2005.

The operation of the landfill is subject to the condition that Nucor Steel (Permittee) meet the requirements set forth herein.

All references to UAC R315-301 through 320 are to regulations that are in effect on the date that this permit becomes effective.

Effective date: November 1, 2005.

Expiration date: October 31, 2010.

Signed this 28th day of October, 2005.

Dennis R. Downs, Executive Secretary
Utah Solid and Hazardous Waste Control Board

PERMIT REQUIREMENTS

LANDFILL NAME:	Nucor Steel Landfill
OWNER NAME:	Nucor Steel – Plymouth Division
OWNER ADDRESS:	P.O. Box 100 Plymouth, Utah 84330
OWNER PHONE NO.:	(435) 458-2300
OPERATOR NAME:	Nucor Steel – Plymouth Division
TYPE OF PERMIT:	Class IIIb Noncommercial Solid Waste Landfill
PERMIT NUMBER:	0001R1
LOCATION:	Landfill site is located in Township 13 north, Range 3 west, Section 9, SLBM; Box Elder County, Lat. 41° 52' 35", Long. 112° 11' 46"

Permit as used in this document is defined in UAC R315-301-2(55).

The renewal application, as deemed complete on August 10, 2005, is hereby approved and incorporated by reference into this Solid Waste Permit and will be referred to as the permit application throughout this permit. All representations made in the permit application are part of this permit and are enforceable under UAC 315-301-5(2). The permit application will become part of the operating record of the Landfill. Where differences in wording exist between this permit and the application, the wording of The Permit supersedes that of the application.

By this permit to operate, the Permittee shall be subject to the following conditions.

I. GENERAL COMPLIANCE RESPONSIBILITIES

A. General Operation

The Permittee shall operate the Class IIIb landfill in accordance with the conditions of this Permit and with all requirements of UAC R315-304, that are in

effect as of the date of this permit unless otherwise noted in this permit. Any permit noncompliance constitutes a violation of UAC R315-304 and is grounds for appropriate enforcement action, permit revocation, modification, or denial of a permit application.

B. Noncompliance

If monitoring, inspection, or testing indicates that any permit condition or any applicable rule under UAC R315-301 through 320 may be or is being violated, the Permittee shall promptly make corrections to the operation or other activities to bring the facility into compliance with all permit conditions or rules. In the event of any noncompliance with any permit condition or violation of an applicable rule, the Permittee shall promptly take any feasible action reasonably necessary to correct the noncompliance or violation and mitigate any risk to the human health or the environment. Actions may include eliminating the activity causing the noncompliance or violation and containment of any waste or contamination using barriers or access restrictions, placing of warning signs, or permanently closing areas of the facility. The Permittee shall: document the noncompliance or violation in the operating record, on the day the event occurred or the day it was discovered; notify the Executive Secretary of the Solid and Hazardous Waste Control Board within 24 hours, or the next business day following documentation of the event; and give written notice of the noncompliance or violation and measures taken to protect public health and the environment within seven days of Executive Secretary notification. Within thirty days of the documentation of the event, the Permittee shall submit, to the Executive Secretary, a written report describing the nature and extent of the noncompliance or violation and the remedial measures taken or to be taken to protect human health and the environment and to eliminate the noncompliance or violation. Upon receipt and review of the assessment report, the Executive Secretary may order the Permittee to perform appropriate remedial measures including development of a site remediation plan for approval by the Executive Secretary.

It shall not constitute a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

Compliance with the terms of this permit does not constitute a defense to actions brought under any other local, State, or Federal laws. This permit does not exempt the Permittee from obtaining any other local, State or Federal permits or approvals.

The issuance of this Permit does not convey any property rights, other than the

rights inherent in this permit, in either real or personal property, or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations including zoning ordinances.

The provisions of this Permit are severable. If any provision of this Permit shall be held invalid for any reason, the remaining provisions shall remain in full force and effect. If the application of any provision of this Permit to any circumstance is held invalid, its application to other circumstances shall not be affected.

C. Inspection and Inspection Access

The Permittee shall allow the Executive Secretary of the Utah Solid and Hazardous Waste Control Board or an authorized representative of the Board, including representatives from the Bear River Health Department, to enter at reasonable times and:

1. Inspect the landfill or other premises, practices or operations regulated or required under the terms and conditions of this Permit or UAC R315-301 through 320;

2. Have access to and copy any records required to be kept under the terms and conditions of the Permit or UAC R315-301 through 320;

3. Inspect any loads of waste, treatment, pollution management, or control facilities required under the Permit or regulated under UAC R315-301 through 320; and

4. Create a record of any inspection by photographic, videotape, electronic, or any other reasonable means.

D. Prohibited Waste

No hazardous waste as defined by UAC R315-1 and R315-2; no PCB's as defined by UAC R315-301-2(53), except PCB's specified by UAC R315-315-7(2)(a) and (c); no household waste; no municipal waste; special waste, except as specified in this permit; or commercial waste shall be accepted for treatment, storage, or disposal at the landfill.

E. Acceptable Waste

This permit is for disposal of nonhazardous industrial waste, as defined in UAC

R315-301-2(35), generated by Nucor Steel – Plymouth Division and as described in the permit application, and carcasses of animals that may be accidentally killed on the plant site.

F. Revocation

This permit is subject to revocation if any condition of this permit is not being met. The Permittee will be notified in writing prior to any proposed revocation action and such action will be subject to all applicable hearing procedures established under UAC R315-12 and the *Utah Administrative Procedures Act.*

Revocation of this permit does not revoke the financial assurance established for closure and post-closure care of the facility, nor remove any responsibility on the part of the Permittee for completion of closure and post-closure care for the facility required in UAC R315-302-3.

G. Attachment Incorporation

Attachments incorporated by reference are enforceable conditions of this permit, as are documents incorporated by reference into the attachments. Language in this permit supercedes any conflicting language in the attachments or documents incorporated into the attachments.

II. DESIGN AND CONSTRUCTION

A. Construction

The landfill shall be constructed in the area designated and according to the design outlined in the permit application including landfill cells, fences, gates, and berms.

The Permittee shall notify the Executive Secretary upon completion of construction of any landfill cells or run-on and run-off diversion systems. No landfill cells or run-on and run-off diversion system may be used until construction is approved by the Executive Secretary.

The Permittee shall notify the Executive Secretary of the completion of construction of any final cover system and shall provide all necessary documentation and shall apply for approval of the construction from the Executive Secretary.

All engineering drawings submitted to the Executive Secretary must be stamped and approved by a professional engineer with a current registration in Utah.

B. Run-On Control

Perimeter drainage channels and berms shall be constructed as specified in the permit application. These channels shall be maintained at all times to effectively prevent run-off from the surrounding property from entering the landfill.

III. LANDFILL OPERATION

A. Operations Plan

The operations plan included in the permit application shall be kept onsite at the landfill. The landfill shall be operated in accordance with the operations plan as included in the permit application. If necessary, the facility owner may modify the Operations Plan, provided that the modification meets all of the requirements of UAC R315-301 through 320 and is as protective of human health and the environment as that approved in the permit application. Any modification to the Operations Plan shall be noted in the operating record.

Any modification to the operations plan that is not a minor modification is a major modification and will require public comment following Executive Secretary approval.

B. Security

The Permittee shall operate the Landfill so that unauthorized entry to the facility is prevented. All facility gates and other access routes shall be locked during the time the landfill is not open. Fencing as shown in the permit application shall be constructed to prevent access of persons or livestock by other routes.

C. Waste Inspections

The Permittee shall visually inspect incoming waste loads to verify that no wastes other than those allowed by this permit are disposed in the landfill. All waste loads shall be inspected prior to deposition during periods of high use, with deposited waste inspected at the end of each day during typical low use periods, as described in the permit renewal application.

All containers capable of holding more than five gallons of liquid will be

inspected to assure that the container is empty.

D. Cover

The Permittee shall cover the waste as necessary to prevent fires and to control vectors, blowing litter, odor, scavenging, and fugitive dust. Wastes that are capable of attracting or providing food for vectors, materials that may become windblown litter, or fine materials that may become fugitive dust shall be covered with a minimum of six inches of earth at the end of the working day in which they are received. A minimum of six inches of earthen cover shall be provided no less than once each month for all other wastes received at the landfill. At the end of each day of operation, when cover is placed, the amount of cover placed and the area receiving cover shall be recorded in the operating record.

E. Disposal of Liquids

Disposal of containers larger than household size (five gallons) holding any liquid, noncontainerized material containing free liquids, or any waste containing free liquids in containers larger than five gallons is prohibited.

F. Roads

All roads used for transporting waste to the landfill for disposal shall be improved and maintained as necessary to assure safe and reliable all-weather access to the disposal area.

G. Burning of Waste

Intentional burning of solid waste is prohibited and is a violation of UAC R315-303-5(2)(b). All accidental fires shall be extinguished as soon as possible.

H. Record Keeping

The Permittee shall maintain and keep on file at the Nucor Environmental Department office an operating record as required by UAC R315-302-2(3). The landfill operator, or other designated personnel, shall date and sign the operating record at the end of each operating day. Each record to be kept shall contain the signature of the appropriate operator or personnel and the date signed. The operating record shall include the following items:

1. The daily operating record shall include the following items:

a. The number of loads of waste and the weights or estimates of weights or volume of waste received each day of operation and recorded at the end of each operating day;

b. Major deviations from the approved plan of operation recorded at the end of the operating day the deviation occurred;

c. Results of other monitoring required by this permit recorded in the operating record on the day of the event or the day the information is received;

d. Records of all inspections conducted by the Permittee, results of the inspections, and corrective actions taken shall be recorded in the record on the day of the event;

2. The general record of landfill operations shall include the following items:

a. A copy of this Permit including the permit application;

b. Results of inspections conducted by representatives of the Utah Solid and Hazardous Waste Control Board and/or representatives of the Bear River Health Department, when forwarded to the Permittee;

c. Closure and Post-closure care plans; and

d. Records of employee training.

I. Reporting

The Permittee shall prepare and submit, to the Executive Secretary, an Annual Report as required in UAC R315-302-2(4). The Annual Report shall include: the period covered by the report, the annual quantity of waste received, an annual update of the financial assurance mechanism, and all training programs completed.

J. Self Inspections

The Permittee shall inspect the facility to prevent malfunctions and deterioration, operator errors, and discharges that may cause or lead to the release of wastes or contaminated materials to the environment or create a threat to human health. These general inspections shall be completed no less than quarterly and shall

cover the following areas: Waste placement, compaction, and cover; fences and access controls; roads; run-on/run-off controls; any intermediate and final; litter controls; and records. A record of the inspections shall be placed in the daily operating record on the day of the inspection. Areas needing correction, as noted on the inspection report, shall be corrected and the actions taken placed in the daily operating record.

IV. CLOSURE REQUIREMENTS

A. Closure

The Permittee shall close and maintain the facility in accordance with the closure and post-closure plans included in the permit application and as required by R315-305-5(5) UAC.

B. Title Recording

The Permittee shall also meet the requirements of UAC R315-302-2(6) by recording with the Box Elder County Recorder as part of the record of title that the property has been used as a landfill.

C. Post-Closure Care

Post-closure care at the closed landfill shall be done in accordance with the Post-Closure Care Plan contained in the permit application. Post-closure care shall continue until all waste disposal sites at the landfill have stabilized and the finding of UAC R315-302-3(7)(c) is made.

D. Financial Assurance

The Permittee shall keep in effect and active the currently approved financial assurance mechanism or another mechanism that meets the requirements of UAC R315-309 to cover the costs of closure and post-closure care at the landfill. The financial assurance fund shall be adequately funded to provide for the cost of closure at any stage or phase or anytime during the life of the landfill or the permit life, whichever is shorter.

With each annual revision of the closure and post-closure care cost estimate, the approved financial assurance mechanism shall be updated to reflect the current cost estimates.

E. Financial Assurance Annual Update

An annual revision of closure costs and financial assurance funding as, required by R315-309-2(2), shall be submitted to the Executive Secretary as part of the annual report.

V. ADMINISTRATIVE REQUIREMENTS

A. Transfers

This permit may be transferred to a new permittee or new permittees by meeting the requirements of the Permit Transfer provision in UAC R315-310-10.

B. Permit Modifications

Modifications to this permit may be made upon application by the Permittee or by the Executive Secretary. The Permittee will be given written notice of any permit modification initiated by the Executive Secretary.

C. Expiration

Application for permit renewal shall be made at least six months prior to the expiration date, as shown on the signature (cover) page of this permit. If a timely renewal application is made and the permit renewal is not complete by the expiration date, this permit will continue in force until renewal is completed or denied.

D. Expansion

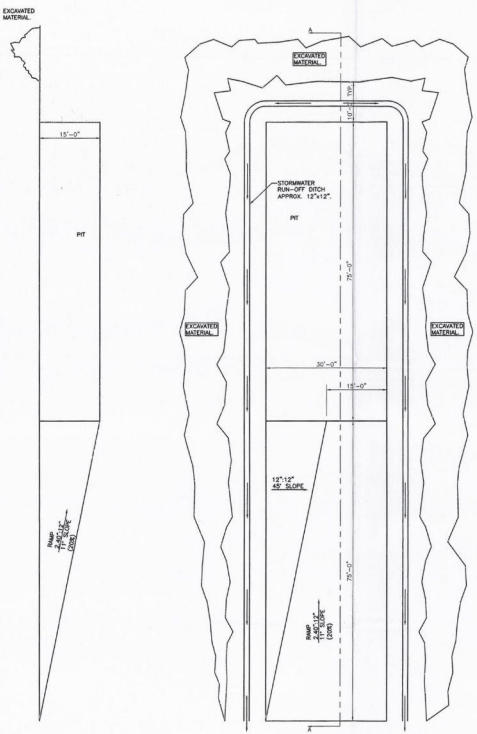
This permit is for the operation of a Class IIIb Landfill according to the design and Operation Plan described and explained in the permit application. Any expansion of the current footprint designated in the description contained in the permit application, but within the property boundaries designated in the permit application, will require submittal of plans and specifications to the Executive Secretary. The plans and specifications must be approved by the Executive Secretary prior to construction.

Any expansion of the landfill facility beyond the property boundaries designated in the description contained in the permit application will require submittal of a

new permit application in accordance with the requirements of UAC R315-310.

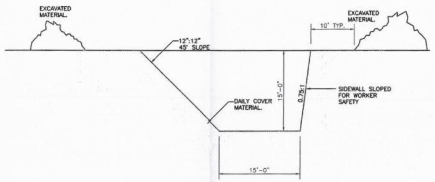
Any addition to the list of acceptable waste in Section IE will require submittal of all necessary information to the Executive Secretary and the approval of the Executive Secretary.

Attachment 3
Site Plan



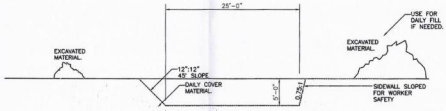
SECTION 'A-A'
SCALE: 3/64"=1'2"

PLAN VIEW
SCALE: 3/64"=1'2"

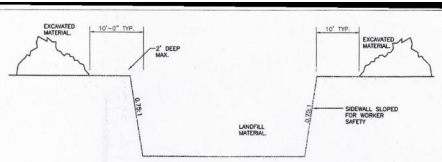


RAMP DETAIL @ 15' DEEP

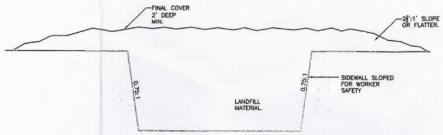
RAMP DETAIL @ 10' DEEP



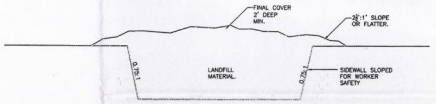
RAMP DETAIL @ 5' DEEP



PRIOR TO PIT RECLAIMATION



FINAL AT PIT CLOSURE



FINAL AT RAMP CLOSURE @ 10' RAMP DEPTH

FINAL AT RAMP CLOSURE @ 5' RAMP DEPTH

FINAL CLOSURE CROSS SECTION

GENERAL TOLERANCES	REFERENCE DWG. NO.
UNLESS OTHERWISE SPECIFIED	
TOLERANCES ON MACHINE DIMENSIONS	
FRACTIONAL ± 1/64"	
DECIMAL ± .005"	
METRIC ± .12mm	

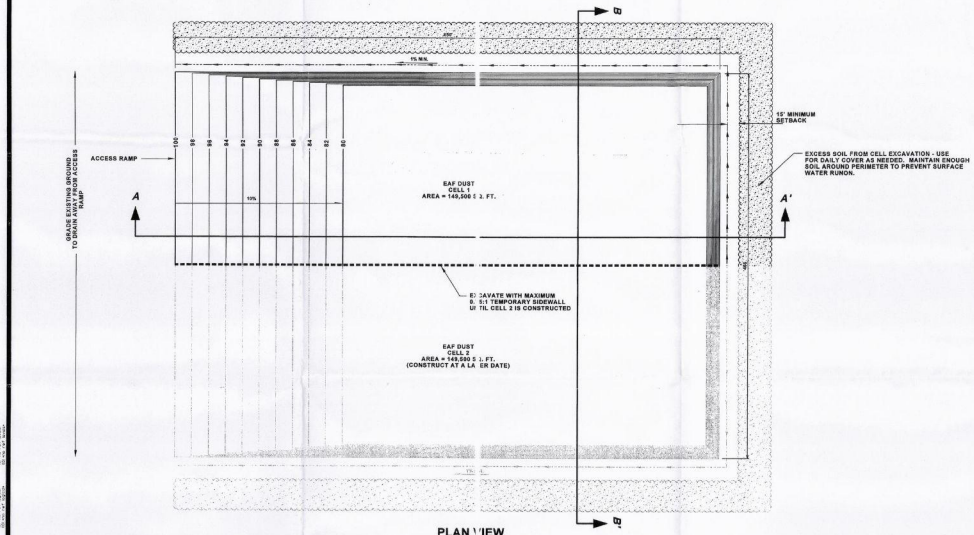
NO.	DATE	NOTES	APP.	BY

NUCOR R15.0 PLOT: 11-15-1999 14:25

NUCOR STEEL
A DIVISION OF NUCOR CORPORATION
PLYMOUTH, UTAH

GENERAL - LANDFILL SECTIONS, DETAILS & LAYOUTS

SCALE: 1:96 (1/8"=12") DATE: 11-8-99
DRAWN: R. SCOTT ASSY. DWG.:
TRACED: SUPERSEDES:

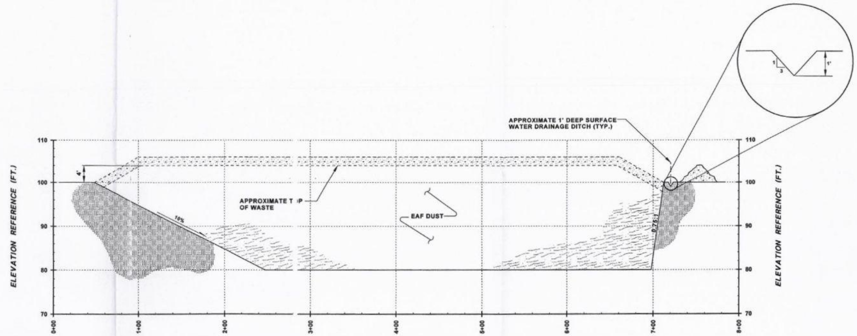


PLAN VIEW

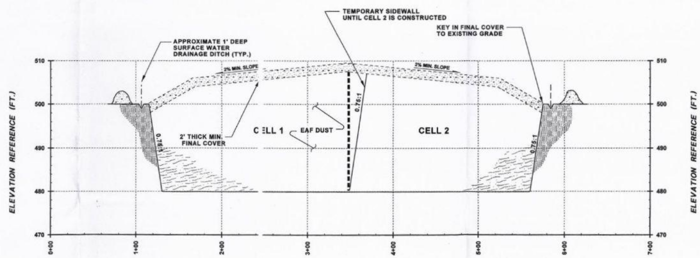
LEGEND

NOTES

1. ELEVATIONS SHOWN ELEVATIONS WILL BE
2. CELL 1 CONSTRUCTE



SECTION A - A'



SECTION B - B'

LEGEND

PRO
PRO
NAT
EAF
EXC

NOTES

1. ELEVATIONS SHOWN ARE ELEVATIONS WILL BE TIE

2. CONSTRUCT CELL 1IN FI

3.		
2.		
1.		
NO.	BY	DATE

PROJECT: NU A DIVISION OF PLYM

SHEET TITLE: CLASS PERMIT MODIFICA ENGINEERIN

DRAWN BY: stormert SCALE:
CHECKED BY: JFE
APPROVED BY: JFE
DATE: MARCH 2003

PROFILE SCALE: 10 SCALE 1"=10'

Attachment 4
Proof of Property Ownership

BOX ELDER COUNTY
TREASURER'S OFFICE
01 South Main
Brigham City, UT 84302

2009 TAX NOTICE

THIS PROPERTY MAY BE RE-APPRAISED

PARCEL NO	DISTRICT NO
07-035-0001	124

ADDRESS OF PROPERTY

-

FORWARD THIS NOTICE TO NEW OWNER IF PROPERTY HAS BEEN SOLD

B2 459-1/4

NUCOR CORPORATION,
% CHARLES ZURCHER
PO BOX 100
PLYMOUTH UT 84330-0100

PARTIAL PROPERTY DESCRIPTION

BEG AT NW COR OF SEC 9, TWP 13N, R 3W, SLM, S 0°14¢03W 3945.19 FT, E 1333 FT, S 331.50 FT, E 232

DESCRIPTION	ACRES	MARKET VALUE	TAXABLE VALUE	TAX AMOUNT
COMMERCIAL LAND & BUILDING	627.93	20,033,200	20,033,200	233,887.61
TOTAL CURRENT YEAR		20,033,200	20,033,200	233,887.61

TAXING ENTITIES		TAX RATE	TAX AMOUNT
24	PLYMOUTH CEMETERY	0.000209	4,186.94
42	BOX ELDER MOSQUITO ABATEMENT	0.000313	6,270.39
44	BOX ELDER COUNTY LIBRARY	0.000150	3,004.98
45	BOX ELDER COUNTY	0.002162	43,311.78
54	BOX ELDER SCHOOL DISTRICT	0.006768	135,584.70
55	BASIC SCHOOL LEVY	0.001433	28,707.58
61	STATE ASSESSING & COLLECTING	0.000142	2,844.71
64	BEAR RIVER WATER CONSV DIST	0.000192	3,846.37
65	LOCAL ASSESSING & COLLECTING	0.000306	6,130.16
		0.011675	233,887.61

2009 Property Taxes unpaid or postmarked after November 30, 2009 are delinquent. A penalty of 2% or $10.00, whichever is greater, will be added. From January 1, interest will be charged at 6% above the Federal Discount Rate.

PREPAYMENTS	0.00
ABATEMENTS	0.00
PRIOR YEAR TAXES DUE	0.00
TOTAL DUE	233,887.61

DETACH AND MAIL BOTTOM PORTION WITH CHECK. BRING ENTIRE NOTICE WHEN PAYING IN PERSON

NUCOR CORPORATION,
% CHARLES ZURCHER
PO BOX 100
PLYMOUTH UT 84330-0100

MAKE CHECK PAYABLE TO
BOX ELDER COUNTY
TREASURER'S OFFICE
01 South Main
Brigham City, UT 84302

PARCEL NUMBER	07-035-0001
TOTAL DUE	233,887.61

Attachment 5
Example Landfill Record Keeping Forms

NUCOR
BAR MILL-PLYMOUTH

MONTHLY LANDFILL RECORD

Month: March **Year:** 2010

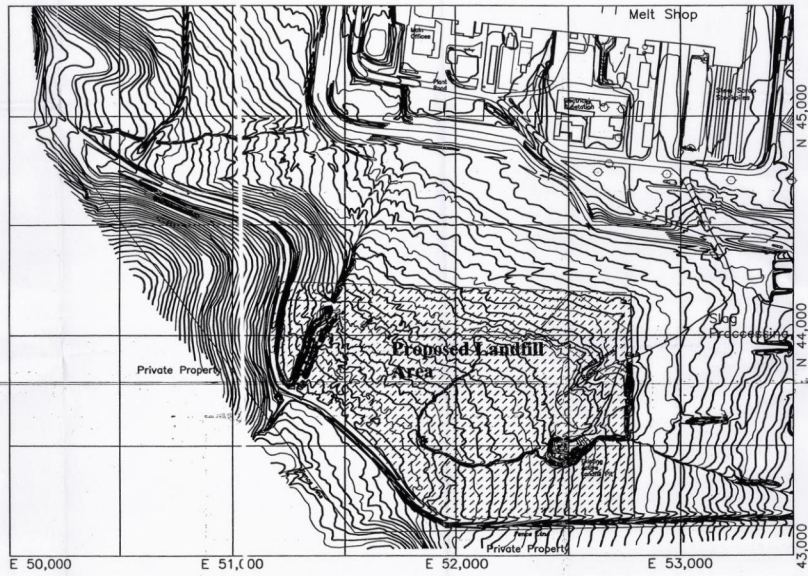
Instructions: Record type and quantity of waste received each day. This information may be used in reporting landfill activitiy to Nucor Corporate, Regulatory Agencies, and to document compliance to the landfill permit. Therefore, use good judgement in estimating quantities to ensure good correlation between actual disposal quantity and reporting quantity.

DAY	CELL NAME	MILLSCALE Loads	MILLSCALE Yds	REFRACTORY Loads	REFRACTORY Yds	TRASH OR OTHER WASTE Loads	TRASH OR OTHER WASTE Yds	Covered (y/n)? yes	Covered (y/n)? no	Amount of Cover Yds	Daily Inspection: Conforming Waste? yes	Daily Inspection: Conforming Waste? no	Daily Inspection: Run On/Run Off Controls Functional? yes	Daily Inspection: Run On/Run Off Controls Functional? no	Comments Attached? yes	Comments Attached? no	Inspectors Signature
1	4-					closed			—	1		—	✓			✓	
2						3	1	✓		3	✓		✓			✓	
3						1	1/2	✓		2	✓		✓			✓	
4						2	1	✓		3	✓		—			✓	
5						closed		—		—	—		✓			✓	
6						closed		—		—	—		✓			✓	
7						closed		—		—	—		✓			✓	
8						closed		—		—	—		✓			✓	
9						8	30	✓		0	✓		✓			✓	
10						2	2	✓		3	✓		✓			✓	
11						closed		✓		2	✓		✓			✓	
12						closed		—		—	—		✓			✓	
13						closed		—		—	—		✓			✓	
14						closed		—		—	—		✓			✓	
15				mix-scale		closed		—		—	—		✓			✓	
16		3	30	1	10	5		✓		0	✓		✓			✓	
17						15	160	✓		0	✓		✓			✓	
18						12	130	✓		0	✓		✓			✓	
19						closed		—		0	—		✓			✓	
20						closed		—		0	—		✓			✓	
21						closed		—		0	—		✓			✓	
22						closed		—		0	—		✓			✓	
23	3-10					9	22	✓		0	✓		✓			✓	
24						2	6	✓		5	✓		✓			✓	
25						4	10	✓		3	✓		✓			✓	
26						closed		—		—	—		✓			✓	
27						closed		—		—	—		✓			✓	
28						closed		—		—	—		✓			✓	
29						closed		—		—	—		✓			✓	
30						1	1/2	✓		1	✓		✓			✓	
31						2	5	✓		3	✓		—			✓	

451F015 Rev. 11/14/05

368 X 0.75 = 276.0
+ 30.0 yds
= 487.45

Attachment 6
Cell Construction and Closure Design



1" = 1,320'

GENERAL TOLERANCES	REFERENCE DWG. NO.
UNLESS OTHERWISE SPECIFIED	
TOLERANCES ON MACHINE DIMENSIONS FRACTIONAL ± 1/64" DECIMAL ± .005" METRIC ± .12mm	
TOLERANCES ON FABRICATION DIMENSIONS HOLE LOCATION ± 1/32" GENERAL FABRICATION ± 1/16"	

NO.	DATE	NOTES	APP.	BY
		REVISIONS		

NUCOR STEEL
A DIVISION OF NUCOR CORPORATION
PLYMOUTH, UTAH

Class IIIb Landfill Permit Application
January 2000

SCALE: 1" = 1320' DATE: 12/14/99
DRAWN: BJ ASSY. DWG.:
TRACED: SUPERSEDES:
CHK'D.: SUPERSEDED BY:
APP'D.: MAT'L
FILE NO.: DWG. NO.: REV.

Attachment 7
Training and Safety Plan

Landfill Training and Safety Plan

Site Operator Training

Nucor will assign either a contractor or a Nucor employee or employee(s) to operate the landfill in accordance with permit requirements. The operator will be provided a copy of the landfill application and any updates that were used for permitting purposes with the Utah Division of Environmental Quality. The information contained in the application, and any additional specifications or requirements contained in a permit issued by the state will be used to specify the operating procedures for the landfill to satisfy environmental requirements. In addition, the landfill will be routinely inspected by Nucor employees responsible for maintaining plant wide compliance with environmental regulations and guidance will be provided to the operator as needed.

The entire Nucor facility is covered by the Occupational Safety and Health Administration. The landfill will be operated in compliance with these regulations to satisfy both safety training and operating safety requirements.

Nucor Employee and Contractor Training

Each Nucor employee receives environmental and safety training upon hire. Waste handling procedures, including the types of materials that are acceptable to be placed in the landfill are included in this initial employee training. In addition, at least annually, Nucor employees will receive a review of waste handling procedures at the facility. Department managers receive periodic guidance on landfill use that is passed on to individual employees as necessary.

Employees of on site contractors receive both environmental and safety training as necessary from the contractor. Additional environmental training is provided to users of the landfill by the landfill site operator on an ongoing basis as described in the landfill application and permit.

Attachment 8
Seed Mixture, Application, and Cost Information

granite SEED

FAX

1697 West 2100 North
Lehi, UT 84043

Phone: (801) 768-4422
Fax: (801) 768-3967

Date: November 29, 1999

To: Doug Jones

Company: Newcourse Steel Co.

From: Bill Agnew

Pages (Including Cover): 1

Re: Seed Mixture for Landfill Reclamation

Doug:

As requested, please find a native seed mixture for Newcourse Steel's Landfill Reclamation project. It is anticipated that 35 acres will be reclaimed with seed needed immediately. An appropriate seeding rate would be 20 pls #'s/acre. The following is offered:

Species	Seeding Rate (pls #'s/acre)
Western wheatgrass (Agropyron smithii)	4.0
Bluebunch wheatgrass (Agropyron spicatum)	4.0
Slender wheatgrass (Agropyron trachucaulum)	4.0
Sheep fescue (Festuca ovina)	2.0
Bottlebrush squirreltail (Sitanion hystrix)	1.0
Big bluegrass (Poa ampla)	1.0
Lewis blue flax (Linum lewisii)	1.5
Western yarrow (Achillea milifolium)	.5
Antelope bitterbrush (Purshia tridentata)	1.0
Rubber rabbitbrush (Chrysothamnus nauseosus)	.5
Basin bigsage (Artemesia tridentata)	.5
	20.0

Seed cost/acre - $ 169.00

Doug, if you have questions, please let me know. Granite Seed looks forward to providing this mixture at your convenience.

Best regards,
Bill Agnew

Attachment 9
Cost Estimate for Closure and Post-Closure Care

Nucor Steel - Plymouth

Updated Year 2010 Finanacial Assurance

Landfill Closure and Reclamation Cost Estimate for Industrial Waste Cells and EAF Dust Monofill Cell

Reclamation

Activity	Equipment or Method	Reference	Cost	Units	Nucor Variable 1	Variable 1 Units	Nucor Variable 2	Variable 2 Units	Total Cost year 2007 Basis	Comment
Final Cover and Regrade of Landfill Cell, 1875 yds/cell, 10 cells maximum	Dozer	Means 31 23 23.14 4040	1.04	$/CY	18750	CY			$19,500.00	RSMeans 2010 Site Work and Landscape Cost Data
Final cover and regrade EAF dust monofill, 8.9 acres @ 2 feet = 22,300 cy	Dozer	Means 31 23 23.14 4040	1.04	$/CY	22300	CY			$23,192.00	RSMeans 2010 Site Work and Landscape Cost Data
Ripping of Landfill Access Road for Seeding Preparation - Maximum Length (1200'), 20' Wide, 6" Deep	Dozer with Ripper	Means 31 23 16.32 2200	1.71	$/CY	444	CY			$759.24	RSMeans 2010 Site Work and Landscape Cost Data
Seeding Re-graded Cells - Labor	Hand Spread	Estimate	31.22	$/hr	8	hours/acre	35	acre	$8,742.04	Cost revised from year 2000 approved calculations by using a 2.5%/yr escalation factor for 2010 estimates
Tracking Seaded Area	Dozer	Means 01590-200-4260	1,015.07	$/day	8	acre/day	35	acre	$4,440.92	RSMeans 2005 Site Work and Landscape Cost Data escalated 4 years a 2.5%/yr
Seed Cost		Vendor Quote	211.06	$/acre	20	lb/acre	35	acres	$7,387.02	Cost revised from vendor quote and year 2000 calculations by using a 2.5% escalation factor
							Reclamation Total Cost		$84,021.22	

Post Closure Care

Activity	Frequency	Reference	Cost (year 2000 approved baseline estimates)	Year 2010 Revised Baseline Cost	Units	Nucor Variable 1	Variable 1 Units	Nucor Variable 2	Variable 2 Units	Escalation Factor (%/year)	# of years to escalate	Cost Using Year 2008 Basis Projected To Year of Work	Comment
Inspections (includes travel time, on-site visual survey of the landfill area, and report)	Year 1	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	0	$1,248.86	
	Year 2	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	1	$1,280.08	
	Year 3	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	2	$1,312.09	
	Year 4	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	3	$1,344.89	
	Year 5	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	4	$1,378.51	
	Year 6	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	5	$1,412.97	
	Year 7	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	6	$1,448.30	
	Year 8	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	7	$1,484.51	
	Year 9	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	8	$1,521.62	
	Year 10	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	9	$1,559.66	
	Year 11	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	10	$1,598.65	
	Year 12	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	11	$1,638.62	
	Year 13	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	12	$1,679.58	
	Year 14	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	13	$1,721.57	Cost revised from year 2000 approved calculations and escalating 9 years for present day cost
	Year 15	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	14	$1,764.61	
	Year 16	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	15	$1,808.73	
	Year 17	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	16	$1,853.94	
	Year 18	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	17	$1,900.29	
	Year 19	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	18	$1,947.80	
	year 20	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	19	$1,996.50	
	Year 21	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	20	$2,046.41	
	Year 22	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	21	$2,097.57	
	Year 23	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	22	$2,150.01	
	Year 24	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	23	$2,203.76	
	Year 25	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	24	$2,258.85	
	Year 26	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	25	$2,315.32	
	Year 27	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	26	$2,373.21	
	Year 28	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	27	$2,432.54	
	Year 29	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	28	$2,493.35	
	Year 30	Estimate	500.00	624.43	$/Inspection	2	Inspections			2.5	29	$2,555.68	
Repair erosion or settlement damage, redirect run-on or run-off	Dozer	Means 31 23 23.14 4040	0.71	1.04	$/CY	3000	CY			2.5	29	$6,384.79	Present day cost estimated from RSMeans 2010 Site Work and Landscape Cost Data
Seeding Re-graded Cells - Labor	Hand Spread 1 acre max	Estimate	25.00	31.22	$/hr	8	hours/ecre	1	Acre	2.5	29	$511.14	Present day cost revised from year 2000 approvad calculations and escalating 8 years for present day cost
Tracking Seeded Area	Dozer	Means 01590-200-4260	806.80	1,015.07	$/day	8	acre/day	1	Acre	2.5	29	$259.85	Present day cost estimated from RSMeans 2005 Site Work and Landscape Cost Data escalated 3 years at 2.5%/year for present day cost.
Seed Cost		Vendor Quote	169.00	211.06	$/acre	20	lb/acre	1	Acre	2.5	29	$422.50	Present day cost revised from year 2000 approved calculations and escalating 9 years.
										Post Closure Care Total Cost		$62,406.54	

	Reclamation		Post Closure		
Total Reclamation and Post Closure Care Cost Subject To Financial Assurance	$64,021.22	+	$62,406.54	=	$126,427.76

Attachment 10
Financial Assurance

Following is proof of financial assurance for the landfill as approved and constructed to date. The mechanism for financial assurance for the modification of the landfill will not change, however, the amount will has been increased to the amount now calculated.

MARSH

Marsh USA Inc.
Charlotte, NC - 225
704-374-8000

Invoice No.
328791

ORIGINAL INVOICE

Date: 5/26/10

Mr. Scott Lanier
Mgr of Financial Accounting
Nucor Corporation
1915 Rexford Road
Charlotte, NC 28211

Effective Date	Expiration Date	Client No.
7/11/10	7/11/11	056115

Policyholder: Nucor Steel

ORIGINAL   Billing Effective Date: 7/11/10

Insurer	Policy No.	Type of Coverage / Item	Amount
TRAVELER C&S A	103 314 278	MISC SURETY PREMIUM	1,125.00
		REMIT IN: UNITED STATES DOLLARS	
		TOTAL:	1,125.00

Principal: Nucor Steel
Obligee: State of Utah
Bond Amount: $150,000.00
Renewal: Closure/Post Closure Bond (for Solid Waste Permitting - Permit #0001)
Requester: Mollie Larson

AUTHORIZED 08 1981
AUDIT DZT PE
CODING 1981
FISCAL PERIOD
REFERENCE NO B717 42014
CHECK/DRAFT
CHECK/DRAFT 7/8/10

Please indicate Invoice # 328791 on your remittance to:

Marsh USA Inc.
P.O. BOX 100536
Atlanta, GA 30384-0536

Invoice Is Payable In Full Upon Receipt

Marsh earns and retains interest income on premium payments held by Marsh on behalf of insurers during the period between receipt of such payments from clients and the time such payments are remitted to the applicable insurer, where permitted by law.

TRAVELERS

INCREASE CERTIFICATE

Principal: **Nucor Steel**, a Division of Nucor Corporation

Bond No. **103 314 278**
Permit No. 0001
Amount of Bond: **$125,000.00**
Hereby increased to: **$150,00.00**

Obligee: **State of Utah, Solid and Hazardous Waste Control Board**

As of **March 8, 2010**, the amount of the above described bond is increased from the sum of **$125,000.00** to the sum of **$150,00.00**, but the liability of the Surety for any acts or defaults occurring before the effective date hereof shall in no event exceed the total sum of **$125,000.00**, and the aggregate liability of the Surety for any acts or defaults, whenever committed, shall in no event exceed the total sum of **$150,00.00**, it being the intent hereof to preclude cumulative liability. This certificate, when signed by the Principal shall become a part of the said bond.

Signed, sealed and dated **March 8, 2010**

Travelers Casualty and Surety Company of America

By Judie M. Chisolm
Judie M. Chisolm Attorney-in-Fact

I hereby consent to the above increase.

Witness my hand and seal this _____ day of _____, _____

_____ (Seal)
Principal

INSTRUCTIONS TO AGENTS - IMPORTANT

Do not deliver this certificate to the Obligee until it has been dated and signed by the Principal. One signed copy must be returned to the Surety.

F-304-F (11-67)

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

TRAVELERS

POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
Seaboard Surety Company
St. Paul Fire and Marine Insurance Company

St. Paul Guardian Insurance Company
St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 216724 **Certificate No.** 003005666

KNOW ALL MEN BY THESE PRESENTS: That Seaboard Surety Company is a corporation duly organized under the laws of the State of New York, that St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company and St. Paul Mercury Insurance Company are corporations duly organized under the laws of the State of Minnesota, that Farmington Casualty Company, Travelers Casualty and Surety Company, and Travelers Casualty and Surety Company of America are corporations duly organized under the laws of the State of Connecticut, that United States Fidelity and Guaranty Company is a corporation duly organized under the laws of the State of Maryland, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc. is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Maryann Dark, and Judie M. Chisolm

of the City of Charlotte, State of North Carolina, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 12th day of May, 2009.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Gnaranty Insurance Underwriters, Inc.
Seaboard Surety Company
St. Paul Fire and Marine Insurance Company

St. Paul Guardian Insurance Company
St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

State of Connecticut
City of Hartford ss.

By: George W. Thompson, Senior Vice President

On this the 12th day of May, 2009, before me personally appeared George W. Thompson, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., Seaboard Surety Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2011.

MARIE C. TETREAULT NOTARY PUBLIC CONNECTICUT

Marie C. Tetreault, Notary Public

58440-5-07 Printed in U.S.A.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., Seaboard Surety Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kori M. Johanson, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., Seaboard Surety Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 8th day of March, 2020

Kori M. Johanson, Assistant Secretary

To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER